

# A NEW MAP OF SOUTHERN ARABIA

## 1. BASIS AND COMPILATION OF THE MAP

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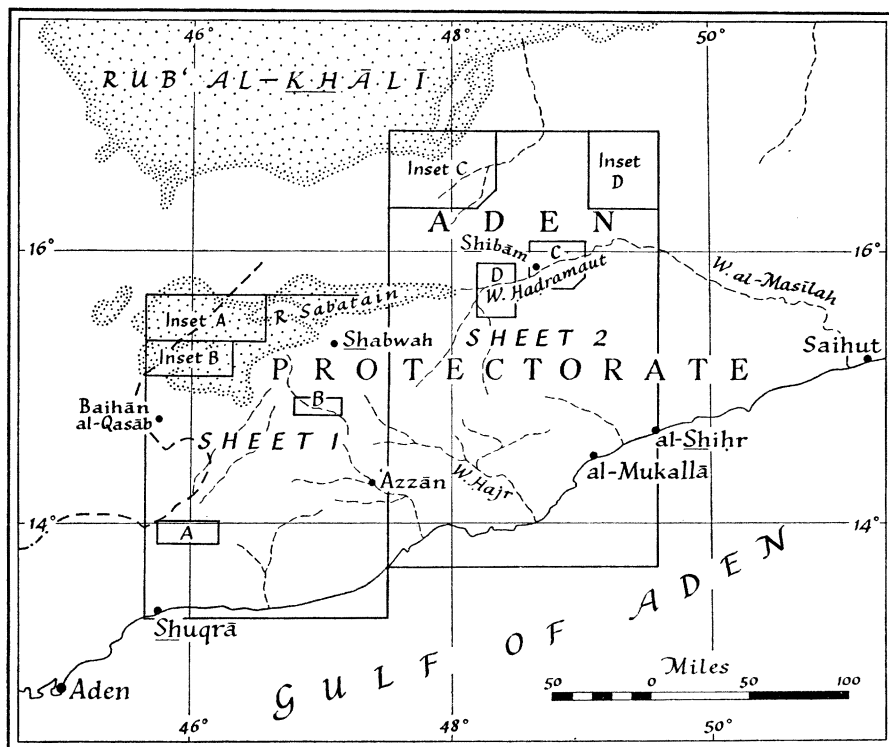
THE ROYAL GEOGRAPHICAL SOCIETY has now published a map, in two sheets, of South Arabia east of Aden, between Shuqrā and Baihān in the west and al-Shiḥr and eastern Wādī Ḥaḍramaut in the east.<sup>1</sup> More than half of this map is based on my detailed route survey during Daan van der Meulen's and my journeys in Ḥaḍramaut, and from Aden to Ḥaḍramaut, in 1931 and 1939. I combined this survey with mapping, sketches, air reconnaissance, air photographs, and investigations of any other travellers from whom I was able to obtain material, up to 1951. The first detailed sketches of the present map which I worked out were on scales between 1 : 100,000 and 1 : 250,000. I was able to include valuable additions when working at the Society in 1948 and 1951/52, kindly assisted by its staff, to whom I am much indebted. Professor R. B. Serjeant, our best authority on the language and dialects of modern South Arabia, who has himself travelled in that country and studied its population, its society, civilization and history, has checked all place-names on the map and recast them in a scientific spelling and transcription. We should be grateful for this time-consuming work; the more so as, in most of the maps of Arabia, names frequently are spelt so carelessly that identification (for instance with names in Arabic literature) may be difficult or impossible. The map was compiled and fair drawn on the present reduced scale of 1 : 500,000 in the Drawing Office of the Society, and special thanks must be given to Mr. Holland, the Chief Draughtsman, who supervised the work throughout.

Among the fundamental material upon which the maps are based is my previous map of Ḥaḍramaut on 1 : 250,000 which covered the central area of the eastern sheet. Based on my survey in 1931, I had worked it out in the same year. The redrawing for reproduction had been made possible by the kind aid of the Topographische Dienst of the Netherlands at The Hague, and this first topographical map of Ḥaḍramaut, which was incorporated into D. van der Meulen's and my book on 'Ḥaḍramaut' (Leiden, 1932, in English), has been the only map of that country for many years. A second fundamental map, especially for the north-western area, was that made by H. St. J. B. Philby of his 1936 journey. This was compiled, drawn and published on a scale of 1 : 1,000,000 by the Royal Geographical Society.<sup>2</sup> During D. van der Meulen's and my overland journey from Aden to Ḥaḍramaut and its surroundings in 1939, rendered possible by the kind assistance of the Government of Aden, and especially that of Sir Bernard Reilly, I was again able to carry out a detailed route survey, which supplied the third main basis of the map.

While the excellent map of O. H. Little<sup>3</sup> and the 1/4 inch to 1 mile map of Shuqrā<sup>4</sup> only cover areas of the coastal hinterland, the investigations of routes by Count Landberg<sup>5</sup> were important for large unexplored areas of the western sheet. The map of the area of Baihān in the west is the result of the excellent plane-table survey by Dr. F. Heybroek in 1950, member of the expedition of the American Foundation for the Study of Man. In addition the routes of A. von Wrede, Th. Bent, L. Hirsch, H. and D. Ingrams\*, W. Bury, Freya Stark, Colonel

Lake\*, D. G. Bunker\*, W. Thesiger and others, as well as the air reconnaissance of Squadron Leaders Rickards\* and Bellerby\*, were incorporated; and a preliminary map made by the Iraq Petroleum Company from air photographs\*, was utilized.<sup>6</sup>

A reduction of my sketch of the present map on the scale of 1 : 2,000,000 was attached to D. van der Meulen's book 'Onbekend Arabië.'<sup>7</sup> In this book and in its English version 'Aden to the Hadhramaut,' Daan van der Meulen describes our journey in 1939. In both of our common journeys we often seemed to be bewitched, as if taken away from our time, thus living in a medieval world of the



Arabian Nights or—when secluded in still remoter regions—even in pre-Mohammedan antiquity.

In the present map I know of only a few errors. The only important one is in the area belonging to the Yemen near the western border of the map, and is explained in the footnote at the end of the paper.<sup>8</sup> The compilation of the map described here was an integral part of my mapping in South Arabia. A scientific journey in the Yemen in 1927, together with Carl Rathjens (he was my teacher then, in modest travelling in little-known and non-westernised countries) brought us from al-Hudaidah to Ṣan'ā' and its surroundings. As guests of Imām Yahyā, we were allowed to join his excavation of an ancient temple. My mapping of the region in which we travelled served as a basis for our scientific results.<sup>9</sup> C. Rathjens' surveys on his later journeys in the Yemen<sup>10</sup> (and my own during an enchanting excursion there in 1931) have mostly not yet been published; but they have been compiled by us. I have, besides, begun to work out the extensive route mappings

and geographical investigations of Eduard Glaser in Yemen, carried out during the years 1884 to 1892. His manuscripts now belong to the Vienna Academy and are deposited in Tübingen.<sup>11</sup> Glaser was an orientalist and geographer, who after much strenuous travelling died before he could give a synopsis of his comprehensive notes and collections. He wanted to write a geography and history of the Yemen.<sup>12</sup>

Based on the results of these journeys, mappings and investigations, much of my work deals with South Arabia, its geology, geomorphology and vegetation<sup>13</sup> as well as its human and historical geography and its ancient history.<sup>14</sup> In addition to this, I have written on Arabia as a whole, its geography and its history of colonization.<sup>15</sup> I have also traced prehistoric and historic social and economic processes and developments within the framework of the main climatical zones of the Old World, especially of its dry belt—those steadily evolving but sometimes rapidly spreading changes of early culture and civilization, which are such an essential part of the social geography and history of Arabia.<sup>16</sup>

Most of the geographical work on South Arabia of C. Rathjens and myself would not have been possible without our survey work. Up to now, in particular, both our geological work and that on historical geography were based on our maps. We hope that these may also be a basis for the geographical journeys and studies of a younger generation. There are many diverse and interesting tasks and problems which, however, are no easier or less delicate to approach than they have ever been. We must keep in mind that we ask for access to secluded, distrustful and conservative Mohammedan countries, jealously defending their isolation. This is especially true of the Yemen.

The historical map in 'Beiträge zur historischen Geographie des vorislamischen Südarabien,' on the scale of about 1 : 1,125,000 reaches from the high plateaus of the Yemen to Wādī Ḥadramaut, and it shows the four central oases of the ancient South Arabian kingdoms, which were all located round the sandy desert of Ramlat Sab'atāin.<sup>17</sup> The map described here shows two of them, Tumna' of Qatabān (Darb Kuḥlān in Baiḥān)<sup>18</sup> and Shabwah of Ḥaḍramaut. Since the early Middle Ages, these four oases have gradually diminished, while nomads immigrated from the north. Thus South Arabia became divided into two countries based on agriculture, the Yemen and Ḥaḍramaut. But while the Yemen became centralized in its high plateaus (Zafār, Ṣan'ā'), where crops depend on monsoonal rains, the heart of the Ḥaḍramaut is still an oasis region. This is Wādī Ḥaḍramaut, a ribbon of date-palm gardens and white towns along the dry bed of the sail (sā'il), which is enclosed by the precipices of the limestone strata of a wide and barren table land, the Jaul. The routes from the main valley to the coast have not only to climb the precipice and to cross the high Jaul. They have also to descend a rough "aqabah" down the mountainous southern breakdown of this plateau to the coastal valleys and plains, finally to reach the hospitable harbour town of al-Mukallā.

#### REFERENCES

- <sup>1</sup> From 45° 35' in the west to 49° 35' in the east.
- <sup>2</sup> *Geogr. J.* 92 (1938) opposite page 192, republished in 'Sheba's daughters' (London, 1939).
- <sup>3</sup> Little, O. H., "The geography and geology of Makalla," *Geolog. Survey of Egypt* (Cairo, 1925), including a map on 1 : 250,000.
- <sup>4</sup> G.S.G.S. 3997, War Office, 1938.
- <sup>5</sup> Especially in Count Landberg's 'Arabica IV' and 'V' (Leiden 1897, and 1898).
- <sup>6</sup> Wrede, A. v., 'Reise in Hadramaut,' Braunschweig, 1870; L. Hirsch, 'Reisen in Süd-Arabien etc.' (Leiden, 1897); Th. Bent, 'Southern Arabia' (London, 1900); D. Ingrams in

*Geogr. J.* **98** (1941), pp. 121–34; *idem*, 'A survey of social and economic conditions in the Aden Protectorate,' The Govt. Printer, Brit. Admin. (Eritrea, 1949); H. Ingrams in *Geogr. J.* **88** (1936), pp. 524–51; **105** (1945), pp. 1–29; *idem*, "Hadhramaut," A Report etc., Colonial No. 123, 1937 (1939); W. Bury, 'The Land of Uz' (London, 1911); F. Stark in *Geogr. J.* **93** (1939), pp. 1–17; W. Thesiger in *Geogr. J.* **111** (1947), pp. 129–45; **113** (1949), pp. 21–46; A. R. M. Rickards in *Geogr. J.* **77** (1931), confronting p. 304; S. B. Miles and W. Munzinger in *Journ. R. Geogr. Soc.* **41** (1871), pp. 210–45; D. G. Bunker in *Geogr. J.* **119** (1953), pp. 420–30; L. W. C. van den Berg 'Le Hadhramaut,' etc. (Batavia, 1886); Count Landberg, 'Études sur les dialectes de l'Arabie Méridionale,' Part I: 'Ḥāḍramōūt' (Leiden, 1901), Part II: 'Daṭīnah' (3 vols.) (Leiden, 1905, 1909, 1913); H. v. Maltzan, 'Reise nach Südarabien' (Braunschweig, 1873); J. R. Wellsted, 'Travels in Arabia' (London, 1838); W. Hein in *Mitt. Geogr. Ges. Wien*, **57** (1914), pp. 32–58; L. Forrer, 'Südarabien nach al-Hamdānī's "Beschreibung der Arabischen Halbinsel",' *Deutsche Morgenländische Gesellschaft, Abh. z. Kunde d. Morgenlandes*, **27**, 3 (1942); R. B. Serjeant, "Hūd and other pre-islamic prophets of Ḥāḍramawt," *Muséon* **67** (1954), pp. 121–79; 'Handbook of Arabia,' Vol. I, London, 1920; 'Naval Intelligence Handbook: Western Arabia and the Red Sea,' 1946 (restricted). Unpublished material indicated by an asterisk is mostly deposited in the Royal Geographical Society.

<sup>7</sup> Meulen, D. van der, 'Onbekend Arabië' (Amsterdam, 1951). In the English edition, 'Aden to the Hadhramaut' (London, 1947), the map is not included.

<sup>8</sup> This mountainous area of Baiḥān al-Daulah and of the Banyar tribal confederation is nearly unknown to us. The whole region seems to belong to the district of al-Baiḍā' of the Yemen. The town al-Baiḍā' is shown in 14° 3' on the border of the map. So the name of a subdistrict called al-Baiḍā' in 14° 45' should be cancelled. The name am-Raṣṣās, written in parenthesis below, was the name of the former independent dynasty of that whole area until at least 1918, when it was in relations with Imām Yaḥyā of the Yemen. It is known that in antiquity the Banyar region was tribal territory of 'Ausān and the centre of the kingdom of that name, which for a time had colonies in East Africa as far as modern Tanganyika. According to an unpublished notebook of E. Glaser, 'Ubarah and Miswarah, here in 14° 30', should be much more to the south, the latter in about 14° 45'. "Miswar" was the capital of a powerful 'Ausān in the fifth century B.C. (cf. 'Handbook of Arabia,' I, 1920, pp. 528 f.; Count Landberg, 'Daṭīnah,' p. 1817; H. v. Wissmann and M. Höfner—see note 15—p. 58 and map).

<sup>9</sup> These, including the maps on 1: 100,000, were published in: C. Rathjens and H. v. Wissmann, 'Südarabien-Reise,' Hamburgische Universität, *Abh. Ausländsk.* **36**, **38** and **40** (1931–34); Vol. I: 'Sabäische Inschriften' (by J. H. Mordtmann and E. Mittwoch); Vol. II: 'Vorislamische Altertümer'; Vol. III: 'Landeskundliche Ergebnisse.'

<sup>10</sup> 1931, 1934, 1937/8, cf. C. Rathjens, 'Sabaeica,' Vol. I, *Mitt. Mus. Völkerk. Hamb.* Nr. 24, 1953, maps p. 16, 52, 122.

<sup>11</sup> Diaries Nr. I, II, VI–VIII, X and XI, Note-book with sketch-maps.

<sup>12</sup> Glaser, E., 'Geschichte und Geographie Arabiens,' Vol. II, Berlin, 1890. (Vol. I is rare) Cf. A. Grohmann, 'Südarabien als Wirtschaftsgebiet,' Vol. I (Wien, 1922), Vol. II *Schriften der phil. Fakultät der Deutschen Universität in Prag* Nr. 13 (Brünn, 1933).

<sup>13</sup> "Beiträge zur Tektonik Arabiens," in cooperation with C. Rathjens, *Geol. Rdsch.* **33** (1942), pp. 221–353 (C. Rathjens, "Beobachtungen in Yemen," pp. 248–79, H. v. Wissmann, "Der Nordrand des Adengolfgrabens," pp. 279–316, H. v. Wissmann and F. Kossmath, "Der Vulkanismus," pp. 316–34).—"Landschaftskundliche Beobachtungen im südlichen Hedjaz," with C. Rathjens, *Erdkunde*, **1** (1947), pp. 61–89, 200–205.—Map of the vegetation of South Arabia; in "Die Palmen Arabiens," M. Burret, *Botanisches Jahrbuch*, **73** (1943), pp. 175–90, plates.—"Karsterscheinungen in Hadramaut"; in *Geomorphologische Studien, Ergänzungsheft* 262 zu *Petermanns Mitteilungen*, Gotha, 1957, pp. 259–68, 9 plates. Cf. O. Schwartz, "Flora des tropischen Arabien," *Mitt. Inst. allg. Bot. Hamb.* **10** (1939), 393 pages. C. Rathjens and others, 'Beiträge zur Klimakunde Südwest-Arabiens,' Deutscher Wetterdienst, Seewetteramt, Einzelveröffentlichung Nr. 11, Hamburg, 1956. G. Warnecke, 'Über die zoogeographische Bedeutung der Tagfalter-Fauna Südarabiens,' *Zoo-geographica*, **1** (1933), pp. 573–8. Hugh Scott, "Vegetation," in 'Naval Intelligence Handbook: Western Arabia and the Red Sea,' 1946 (restricted), pp. 192–210; *ibid.* "Climate."

<sup>14</sup> 'Beiträge zur historischen Geographie des vorislamischen Südarabien,' in cooperation with Maria Höfner, Akademie der Wissenschaften und Literatur, *Abhandlungen der geistes- u. sozialwissensch. Kl.*, Mainz, 1952, Nr. 4, with a folded map of South Arabia east of the Yemen—"Geographische Grundlagen und Frühzeit der Geschichte Südarabiens," *Saeculum IV*, 1953, pp. 61–114, incl. map—"De Mari Erythraeo" (contributions to the ancient geo-

graphy and history of the Red Sea and Arabia), in 'Festschrift für H. Lautensach zum 70 Geburtstag,' *Stuttgarter Geogr. Studien* 69 (1957) pp. 289-324.—'Die Geographie West- und Süd-Arabiens nach Cl. Ptolemäus,' in preparation for Academy of Mainz.

<sup>15</sup> "Arabien," in 'Handbuch der Geographischen Wissenschaft,' ed. F. Klute; Vol. Vorderasien (1933), pp. 178-211.—'Übersicht über Aufbau und Oberflächengestaltung Arabiens,' *Zeitschrift der Gesellschaft f. Erdkunde zu Berlin*, 1932, pp. 335-57, with coloured geolog. map.—'Arabien und seine kolonialen Ausstrahlungen, eine geographisch-geschichtliche Skizze,' *Lebensraumfragen europäischer Völker*, 2, pp. 374-488, with maps, Leipzig, 1941.—'Beiträge zur Tektonik Arabiens,' cf. note 14 (p. 223-48; 279-345).

<sup>16</sup> "Die Klima- und Vegetationsgebiete Eurasiens," *Z. Ges. Erdk. Berl.* (1938), pp. 1-14, "Stellung und Bedeutungswandel des Orients in den Lebensräumen der alten Welt," *ibid.* 1942, pp. 353-68, with maps.—"BADW: The history of the origin of nomadism in its geographical aspect," article in *Encyclopaedia of Islam*, 2nd ed. (1958, in English and French): (a) Ovine nomadism, (b) Equestrian nomadization, (c) Bedouin nomadization, (d) The appearance of camel nomadism in Africa.—"Man's role in changing the face of the Dry Belt of Asia"; in: 'Man's role in changing the face of the earth,' ed. W. Thomas, Chicago, 1956, pp. 278-304.—"Ursprungsherde und Verbreitungswege von Pflanzen- und Tierzucht und ihre Abhängigkeit von der Klimageschichte" (with an English summary), *Erdkunde*, 11 (1957), pp. 81-94, 175-93.

<sup>17</sup> Qarnawu of Ma'in, Mārib of Saba', Tumna' of Qatabān and Shabwat of Ḥaḍramaut. Here the historical map is mainly based on the routes and investigations of E. Glaser.

<sup>18</sup> Tumna' has been partly excavated by the American Foundation for the Study of Man. Cf. W. Phillips, 'Qataban and Sheba' (London, 1955). Preliminary publications of W. F. Albright, A. Jamme, F. P. Albright, and G. van Beek in *Bull. Amer. Schools of Oriental Research*, Baltimore, 1952—.

## 2. THE PROBLEM OF THE PLACE-NAMES

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Establishing the correct form of place-names on Professor von Wissmann's maps has been a long and complicated task. His maps, as he has stated *supra*, are compiled from various sources, and the standard of accuracy in reporting and recording Arabic names varies greatly, from the systematic work of D. van der Meulen and Philby on the one hand, to the somewhat mutilated names of certain other travellers.

Apart, however, from errors arising from mere weakness in Arabic and the lack of competent Arab assistants to rectify it, there are factors which cause the most careful observers to err. Of these the most important element is the peculiarities of the dialects, especially in pronunciation; to this must be added confusion arising from the dictates of classical Arabic spelling. Nor will there always be complete agreement between two Arabs themselves concerning the spelling of some place-name; at times it seems to me that a diminutive name is used along with the ordinary form. Tribal names may sometimes be confused with place-names, an error into which it is all too easy to fall; it is interesting that numerous place-names are identified by the Arabs themselves with eponymous ancestors. There is for example Bal-Ḥāf, and of course Ḥaḍramaut figures also in the genealogies. On the other hand though every town and village in Ḥaḍramaut has a nickname (Saiwūn for example is known as al-Ṭawīlah) these are never a source of confusion.

Working over the place-names on these maps I have concluded that errors have arisen from travellers' incorrect reading of their notes in Arabic or in Roman script—a natural enough source of error in the difficult circumstances under which so many have had to note down their data.

Over the extent of the territories covered by von Wissmann's maps there are divergencies in the actual pronunciation of Arabic, and in the vocabulary current amongst the tribes and peasants. For more detail the Comte de Landberg's *Glossaire Datinois* (Leiden 1920-42) may be consulted, but the following are the principal points of importance:

- ج *jīm g*, as in "garden"; *j*, as in "just"; *y*, as in "yard"; sometimes it has an intermediate sound *gy*.
- ظ و ض *ḍād* and *zā'* most easily described as a sort of palatalized "thee." Both letters of Arabic are pronounced in a way quite indistinguishable to the ordinary ear. They are easily confused by Europeans with *dhāl*, and Arabs themselves occasionally do the same. In some areas like Wāḥidī territory the *ḍād* is pronounced like a rolled *l*. Where classical Arabic demands *zā'*, the letter *ẓ* has usually been employed; otherwise the letter *ḍ* is used.
- غ *ghain gh* pronounced in some districts like the classical Arabic *qāf*.
- ق *qāf q*, outside Aden is usually pronounced like *g* in "garden," in which case it is almost indistinguishable to European ears from *jīm* pronounced as *g*. It is also sometimes pronounced like the letter *ghain*.

The letters *sīn* and *ṣād* frequently interchange, and they are, in South Arabia, difficult to distinguish in any case. The letters *l*, *r*, and *n* tend to interchange, but this rarely gives rise to confusion. The long and short vowels are carefully distinguished in the Arabic script, but the colloquial languages are not always consistent in these matters.

In the Western Aden Protectorate the article *am* is widely used for the ordinary *al*, e.g. *am-Ḥabil* for *al-Ḥabil*.

Many technical topographical terms unknown to classical Arabic are used, and some of these have been printed on the margin of the maps. W. Thesiger has published a list of some of these in the *Geographical Journal* (113, 1 (1949), pp. 43-4), but valuable as this is, it requires a final check before absolute acceptance as authoritative. In all cases the area to which a term relates should be specified, for it may not always be applied in quite the same way in other districts from that where it was recorded. It goes without saying that each area has its own favourite topographical terms, some of which may be peculiar to it. I should not care, however, to attempt to define where the particular word, *khushm*, *anf*, or *nukhr*, meaning a "nose", happens to be commonest.

For Ḥaḍramaut the following terms are given by Saiyid 'Alawī b. Ṭāhīr al-Ḥaddād (cf. *infra*), but there must be many more which he has not recorded.

- جِدْفِر *jidfir*, a clay stratum of good hard clay (without sand) which may either be on the surface of the ground, or under another stratum of sand or gravel.
- حَسْر *ḥasr* (pl. *ḥusūr*), a rise in the ground sloping down to ground at a lower level.
- حور *ḥūr* or *ḥaur*(?), a *ḥūr* is what lies below a *kaur* (peak), and J. Ḥuwairah (diminutive form) is below *Kaur Saibān*.
- حَيْق *ḥaiq*, a low-lying piece of ground (*ghaur*), or a low-lying strip (*tihāmah*), opposite an upland (*najd*).
- مَخْرَج *makhraj* (probable vowelings), see *manfar* (*infra*).

- خَطْمَة *khiṭmah* (pl. *khiṭam*), the mountains and their deserts.
- دُقْم *duqm*, the highest peak of a mountain, or a mountain overlooking a wādī or pass, ravine (*shi* 'b).
- رَمْضَة *ramḍah* (probable vowelting), dwelling or village, a word used only in Jābirī and Ḥamūmī territory.
- سُنْبُك *sunbuk*, land without vegetation and valueless, a word also found in classical Arabic.
- الصُّرُوم *al-ṣurūm*, dwellings of the Bedouin.
- صَيْقَة *ṣaiqah*, a fissure at the top of a mountain in which water flows to the foot. It is also called *al-ṭāriḥ*.
- ضَمْر *ḍamr*, mouth of a wādī. Cf. *manfar* (*infra*).
- طَارِح *ṭāriḥ*, cf. *ṣaiqah* (*supra*).
- عِرْقَة *ʿirqah*, a road in the mountain, narrow and difficult, which beasts cannot manage.
- مَفْتَك *maftak* (probable vowelting), see *manfar* (*infra*).
- قِرِيَه *qirih*, a level piece on the "ḥaid al-jabal," *i.e.* the mountain wall, like a wing or rock for circumambulation (*maṭāf*); here ibex are generally found.
- قِيَوْم *quyūm* (vowelting uncertain), middle of the main wādī to which other wādīs return. This is dialect of Upper Ḥaḍramaut only.
- مَنْفَر *manfar* (probable vowelting), the mouth of a wādī (*makhraj*), and where it widens and flows into another; the mouth of a wādī at the parting of two mountains to its right and left, or of one of them, it then flowing to a wide space in the land, or to another wādī opposite. Synonyms are *ḍamr*, *makhraj*, *maftak*.
- نَقَبَة *naqabah* (pl. *niqāb*), a hole excavated to hold rainwater, wide at the bottom, about a man's height. This has already been noted by van der Meulen and von Wissmann.
- هَشْم *hishm* (pl. *hushūm*), broken high ground.
- مَنْتَرَة *mantarah* (my own observation), a part of the road cutting down through the clay bank to a wādī bed, and up through the clay bank on the other side.

There are a great many elements of place-names which are not strictly speaking topographical. For example there are the sacred enclaves and sanctuaries known as Ḥaufah and Ḥabaṭ, the various stones and rocks which are objects of veneration, or others which are stoned by every passer-by and bear names like *al-Rujaimah*. The names of irrigation or agricultural works often figure in place-names, such as *ḍamd*, an acre, *saum*, a clay bund, *maḍla'ah* and *sudd*, dams. A very large number of these words is not to be found in the classical dictionaries.

In the Eastern Aden Protectorate many names of localities must certainly belong to the Mahrah group of dialects rather than to the Arabic tongue, and even in the Western Protectorate a large number of local names must belong to the pre-Arabic

languages of the area, though it is difficult to draw any hard and fast linguistic dividing line.<sup>1</sup>

A modified form of the R.G.S.2 system of transliteration has been employed, and the different sibilants, dentals, etc., have been distinguished by dots, while in such cases where two letters are used to represent a single Arabic letter, they have been linked by underlining. Long vowels are marked by a stroke above them. As short vowels in Arabic are to some considerable extent variable, inconsistencies may be found, but I do not regard this as a serious matter.

Where there is an authority for a place-name I have provided a reference in the sheets sent to Mr. G. S. Holland, though even printed sources sometimes differ in their spellings. Some names for which I could find no authority are, from their sense, virtually certain to be correct. Where there is no authority, as little change as possible has been made, and that only in order to make the name recorded fit the system of transliteration—such changes have sometimes not been made without misgivings. At a very rough guess I should estimate that perhaps 70 per cent. of the names will be correct, but it must be emphasized that correction is still only partial, and those working in the field are invited to make their own corrections.

The Western Aden Protectorate districts covered by these maps lie so much outside the main areas of Islamic civilization that they figure little in South Arabian literature; anything written on them is still in MS.; but this is not the case with Ḥaḍramaut which is an ancient centre of culture and, relatively speaking, well documented. For the Western Protectorate I have relied on Landberg's excellent works, 'Arabica' IV and V, which, though written about sixty years ago, are still immensely valuable today, and on the geographical names in his *Daḥīnah*. Aden newspapers have supplied some names, and my own notes from my forthcoming study on the 'Awdḥālīs, on Dathīnah, and in fact all up the road to Ḥaḍramaut, have supplemented Landberg to some extent. Mr. E. R. Johnston and Muḥammad Farīd of the Aden Political Service assisted me considerably with the large number of places in Upper 'Awlaqī territory not to be found in Landberg's works.

For Ḥaḍramaut my chief source was Saiyid 'Alawī b. Ṭāhīr's *al-Shāmīl fī Tārīkh Ḥaḍramaut* which has a romantic history, for proofs were in the press when the Japanese seized Singapore, but the book was never published as they destroyed the press or frames. Saiyid 'Alawī had however sent some batches of proofs to Ḥaḍramaut for criticisms, and a photograph of part of this work is now in the library of the School of Oriental and African Studies. The geographical introduction is detailed and has proved invaluable. I also used an MS. of Saiyid Aḥmad al-'Aṭṭās's *Risālah*, Saiyid Muḥammad b. Hāshim's *Riḥlah* and *Tārīkh*, the late Sulṭān Ṣāliḥ's *Riḥlah*, and other sources, including my own field notes. Where these sources differed from *al-Shāmīl* I have preferred the latter. For the peripheral areas to the north and east of Ḥaḍramaut valley there was nothing written at my disposal, but I am indebted for assistance to Mr. P. Booker of the Residency staff, and to Shaikh Muḥammad Bā Maṭraf, Assistant State Secretary in al-Mukallā.

It is pertinent to remark that many present-day names of tribes and localities occur in al-Hamdānī's geography and in the medieval genealogical work the *Turfat al-Aṣḥāb*. The amazing continuity in the historical geography of Southern Arabia may be perceived by a perusal of Professor von Wissmann's and Maria Höfner's initial 'Beiträge z. hist. Geographie des vorislamischen Südarabien.'

There is one new problem in the mapping of Arabia which is of no small interest to an Arabist. Professor C. D. Matthews, now of the Arabian Research Division of Aramco, has pointed out in a short paper "Non-Arabic Place Names in Central

South Arabia" presented to the XIVth International Congress of Orientalists at Munich in 1957, the difficulties of establishing a system of transliteration for place-names in "central South Arabia."

For some time Professor Matthews has been working on the geography and tribes of this area and progress has been made by Aramco towards a satisfactory map of the region. I was privileged as a guest at Aramco in 1954 to observe the methods employed at Dhahran. Sitting in a comfortable air-conditioned office the scholar has a group of native informants employed by Aramco at his disposal, to provide him with such information as they have on the language and topography of the districts under study. These informants are retained so long as they are relevant, and then appropriate tribesmen employed for new districts. In the case of the Mahrah areas—which are not in Sa 'ūdī Arabia—it is of course not possible to check up in the field and in person, but valuable work can be done by this method. Certainly Aramco has concerned itself with the accurate presentation of Arabic names in a way that I imagine no other oil concern has done, and in a way that is unknown to surveyors employed on Arabian territories under British control.

Professor Matthews states that in the areas where Mahrī, Ḥarsūsī, Baṭḥarī, and Shahrī (not Shaurī) are spoken, they keep alive a number of their own geographical names as well as those derived from Arabic. In transcribing these names he says, "one is faced by the problem of consonant sounds that can only be approximated in Western phonetic systems, and by both consonant and vowel sounds that will require a special representation in Arabic." It will therefore be necessary to devise a special new system of transliteration for this area. Existing maps of it, apart from such of the Aramco work as the writer has seen, do not seem to have faced up to the problem at all; and who in fact is there but Professor Matthews with sufficient practical field knowledge of their languages to devise a system of transliteration? It should be stressed however that with the opening of Mahrah territory today by oil prospecting, and with the extension of *de facto* control over it by Britain as a protecting power, this is a cartographical problem which needs to be tackled soon.<sup>1</sup>

This map, on the scale of 1 : 500,000, and on two sheets, covers the area shown on the figure on p. 164, and is obtainable only from the Office of the Society. The cost to members of the public is 12s 6d a sheet (£1 for two sheets), and to Fellows 7s 6d a sheet (15s for two sheets). Postage and packing are 2s extra. A gazetteer of names shown on the map is in preparation.

<sup>1</sup> The Shahrī tribes who are not infrequently mentioned in the old chronicles of Ḥaḍramaut have given their name to its important port, al-Shihr. In this and other areas one would therefore look for survivals of their language in local place-names.

<sup>2</sup> Professor Matthews puts forward an interesting proposition, namely that the element Bal in place-names east of Ḥaḍramaut, means ba'l, lord of, owner of, and does not stand for Ibn or Abū as it has been assumed is the case in Ḥaḍramaut. Though in MSS. Bā in such contexts is often spelled Abā (for all three cases), I am far from inclined to discount the possibility that this might also apply to at least some names in Ḥaḍramaut beginning with the characteristic Ḥaḍramī Bā.